REMARKS

Reexamination and reconsideration of this application is requested. After this Response, Claims 1-12 remain pending in this application. Applicant submits that the present Response places the application in condition for allowance. Entry of the present response is therefore respectfully requested.

Claim Rejections - Non-Statutory Obviousness-Type Double Patenting

(1) The Examiner provisionally rejected Claims 1-12, under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-17 of co-pending Application No. 10/729,875. The Examiner recognized that, in comparing the present Claims 1-12 to the '875 Claims 1-17, the claims are not identical. However, the Examiner concluded that the claims are not patentably distinct from each other.

Applicants respectfully disagree with the Examiner and believe in view of the following remarks and arguments that the application presently recites in allowable form. Applicants respectfully request that the Examiner withdraw the rejection of Claims 1-12 under the judicially created doctrine of obviousness-type double patenting.

Regarding the present Claims 1-12, as compared with the Claims 1-17 of the Micheloni Patent Application No. 10/729,875, the Examiner focused specific attention on the limitations of "applying a programming pulse and at least one additional programming pulse to those memory cells" and "varying substantially at each programming pulse a voltage applied to a control electrode of the memory cells of the group" that are found in Claims 1-17 of the Micheloni Patent Application No. 10/729,875 and concluded that this discloses the claim limitations recited in the present Claims 1-12 as follows:

"applying at least one first programming pulse and at least one second programming pulse to those memory cells" and "varying voltage applied to a control electrode of the memory

cells between the at least one first programming pulse and the at least one second programming pulse".

However, the Examiner's reliance solely upon the above cited limitations of the Claims 1-12 to conclude that these claims are anticipated by with the Micheloni '875 patent application Claims 1-17 is misplaced for the following reasons. First, the present claims are directed at features that are clearly not present in the claims of the '875 patent application. For example, with reference to the present Claim 1, the claim is directed to "**forecasting** a change in biasing conditions of the memory cells in the group between the at least one first and at least one second programming pulses; and varying the control electrode voltage according to the **forecasted** change in biasing conditions." (**Emphasis added**.) This claim feature, in particular, is not in any way taught, anticipated, or suggested by the Claims 1-17 of the '875 patent application.

The technical problem tackled by the presently claimed invention is that of how to take into account (and to forecast), during programming operation, the changes of biasing conditions experienced by the cells under programming as a consequence of the fact that, while the programming proceeds, more and more program loads are disconnected. Co-pending Patent Application No. 10/729,875, on the other hand, is not at all concerned with this problem, and the claims do not include those specific features that are instead readable only in the claims of the present patent application.

As discussed above, the claims of the presently claimed invention are directed towards the forecasting of changes in biasing conditions of memory cells between programming pulses and accordingly varying the voltage of the control electrode of the memory cells. On the other hand, the Claims 1-17 in the Micheloni '875 patent application are not directed towards this problem in any way. In other words, they are two completely separate and different processes.

Accordingly, the present claimed invention, as recited for Claims 1-12, distinguishes over the Micheloni '875 patent application Claims 1-17 for at least this reason.

Since the Examiner failed to address the claim element of "varying a voltage applied to a control electrode of the memory cells between the at least one first programming pulse and the at least one second programming pulse, wherein the varying the control electrode voltage comprises: forecasting a change in biasing conditions of the memory cells in the group between the at least one first and at least one second programming pulses; and varying the control electrode voltage according to the forecasted change in biasing conditions", Applicants respectfully assert that the Examiner has failed to prove the prima facie case of obviousness and consequently the obviousness-type double patenting rejection of claims 1-12 was improper and should be withdrawn.

The Examiner also failed to address and point out how the Micheloni '875 patent application claims teaches or suggests the following claim element of independent Claim 8:

> means for forecasting a change in memory cell bias conditions between successive programming pulses and for causing the variable voltage generator to generate a voltage depending on the forecasted change in memory cell bias conditions.

Accordingly, the Examiner failed to prove the prima facie case of obviousness. Therefore, the obviousness-type double patenting rejection of claims 1-12 is improper and should be withdrawn.

Additionally, the Examiner also failed to address and point out how the '875 patent application teaches or suggests the following claim element of Claim 9:

wherein the means for forecasting a change includes means for counting a number of memory cells whose programming state is ascertained to correspond to a desired programming state after a programming pulse is applied.

Accordingly, the Examiner failed to prove the prima facie case of obviousness. Therefore, the obviousness-type double patenting rejection of Claims 1-12 is improper and should be withdrawn.

Additionally, the Examiner also failed to address and point out how the Micheloni '875 patent application teaches or suggests the following claim element of Claim 11:

wherein the means for forecasting comprises means for comparing the number of programming circuit branches that are turned into a disabled state after a programming pulse is applied to at least one prescribed number, the voltage generated by the variable voltage generator depending on the result of such comparison.

Accordingly, the Examiner failed to prove the prima facie case of obviousness. Therefore, the obviousness-type double patenting rejection of Claims 1-12 is improper and should be withdrawn.

Accordingly, in view of the remarks above, since the Micheloni '875 patent application teachings supporting the claims in the '875 patent application taken alone and/or in combination with any cited prior art do **not** teach, anticipate, or suggest, the presently claimed invention, inter alia, "forecasting a change in biasing conditions of the memory cells in the group between the at least one first and at least one second programming pulses; and varying the control electrode voltage according to the forecasted change in biasing conditions", as recited for Claim 1, and further since the teachings supporting the claims in the '875 patent application taken alone and/or in combination with any cited prior art do **not** teach, anticipate, or suggest, the presently claimed "means for forecasting a change in memory cell bias conditions between successive programming pulses and for causing the variable voltage generator to generate a voltage

depending on the forecasted change in memory cell bias conditions", Applicants believe that the rejection of independent Claims 1 and 8, under the judicially created doctrine of obviousness-type double patenting has been overcome and the rejection should be withdrawn.

Claims 2-7 and 9-12 depend from independent Claims 1 and 8, respectively, and since dependent claims recite all the limitations of the independent claims, Applicants believe that dependent claims 2-7 and 9-12 also recite in allowable form. Additional arguments have been presented above for the patentability of certain dependent claims, including Claims 9 and 11, and dependent claims depending therefrom, respectively. The Examiner applied a blanket rejection of all the claims without addressing each claim individually and directing Applicants to where the Micheloni '875 patent application teaches the presently claimed subject matter. The Examiner's "blanket" rejection of all claims of the present invention without addressing each claim for its own claimed limitations is improper and the Examiner has failed to prove the prima facie case of obviousness. Therefore the Applicants respectfully request that the Examiner withdraw the rejection of Claims 1-12.

Conclusion

The foregoing is submitted as full and complete response to the Official Action mailed July 26, 2005, and it is submitted that Claims 1-12 are in condition for allowance or are at least presented in better form for appeal. Reconsideration of the rejection is requested. Allowance of Claims 1-12 is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicants acknowledge the continuing duty of candor and good faith to disclose information known to be material to the examination of this application. In accordance with 37

CFR § 1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and the attorneys.

A petition for extension of time to file this Response has been attached. The Commissioner is authorized to charge the extension fee of **$120**, or if this fee amount is insufficient or incorrect, then the Commissioner is authorized to charge the appropriate fee amount to prevent this application from becoming abandoned, to Deposit Account **50-1556**.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, or that in any way it would help expedite the prosecution of the patent application, a telephone call to the undersigned at (561) 989-9811 is respectfully solicited.

The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account **50-1556**.

In view of the preceding discussion, it is submitted that the claims are in condition for allowance. Reconsideration and re-examination is requested.

Respectfully submitted,

Date: November 28, 2005

By: _____
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